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INTERNET USAGE AMONG ARAB ADOLESCENTS: PRELIMINARY FINDINGS

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Abstract

Internet has profoundly transformed almost all aspects of our society. As a global phenomenon, Internet also bears distinct regional and cultural profiles. Much research has documented the Internet usage in Western world and its impacts on individuals. However evidence in this regards is dearth in Arab world, which represents an important but unique cultural region. In this study, we take an exploratory approach to examine the Internet usage patterns among young Arabic people, and the impact of Internet usage on their identity development. With surveys and structured interviews with 74 students from two universities in the UAE, one public and the other private, our results provide some preliminary results of the first generation of Arab youth exposed to the Internet. We found that Internet usage patterns were diverse however five main activities, searching, emailing, chatting, entertainment, and online discussions, form 75% of Internet usage time. Furthermore, a signification positive impact on self-perception of young Arabic students in the Middle East was observed.

Keywords: Internet usage, Self-perception, Adolescent, Middle East

1 INTRODUCTION

The majority of the students in the Gulf region of the Middle East are the first generation in their family to get higher education, particularly Gulf region nationals. Furthermore, they are often the first generation to have access to the Internet. With the rising price of oil, many governments in the region are directing financial surplus gains toward education. IT and electronic resources are considered one of the cornerstones that support the education process and improves prospective job opportunities for graduates.

Many studies emphasize the role of culture in the adoption and use of technology. Culture “reflects the values and believes of individuals formed during childhood and reinforced throughout life” (Shore & Venkatachalam, 1996). With the increasing importance of IT use in business, it would be interesting to explore the limitations if any those young university students perceive in utilizing online resources. Almost all Gulf region countries rely heavily on a large expatriate community for development. To create self-reliance, the young generation of nationals are being prepared to be the future leaders of their own countries. Developing critical thinking and leadership skills are considered essential to achieve the self-reliance objective. It would therefore be interesting to explore if access to Internet resources affects how these students perceive themselves.

2 INTERNET USAGE AMONG ADOLESCENTS

Internet access and use among adolescents have grown quickly over the past decade in western world. Much research has documented the usage of Internet among the young generation. For instance, it is reported that the primary purpose adolescents use the Internet remains social reasons (Gross, 2004) despite various activities including doing schoolwork, playing games, shopping, and downloading music. As an extended social environment, the Internet has become a virtual meeting place where teens hang out with their peers to pass time. Statistics are also available for the usage pattern of Internet among American teens. The 2002 Gallup Survey [cited from (Whitlock, Powers, & Eckenrode, 2006)] reported that Internet is preferred by many adolescents to the other media, including the telephone, TV, and radio. The Pew Internet and American Life Project (Lenhart, Madden, & Hitlin, 2005; Whitlock et al., 2006) indicated that the vast majority (89%) of teens use e-mail and 75% use instant messaging (IM). However, the knowledge of Internet usage among Arabic youth, despite the recent deployment of Internet in the region, is very little and sparse.

The Internet is a global phenomenon, but with distinct regional profile (Anderson & Eickelman, 1999). Particularly, compared to the western context, the gender difference might be more salient in Internet usage among Arabic youth. Traditionally, a typical user of Internet in the Arab world used to be young, educated, and far more likely to be both professional and male than in the US or Europe (Anderson & Eickelman, 1999). This is because women in Arab world have to cross bigger social and cultural hurdles in using Internet. For females, cultural traditions limit communication with people outside of their close family networks. These customs include: a female cannot show her face except to close family members, a female is not allowed to interact with others, neither male nor female, without permission from her family, and a female is not allowed to touch or be touched by males (e.g., a handshake with a work colleague is not permitted). Using Internet, e.g., email, chat room, online discussion and online games, may represent a strong conflict with traditional culture and social expectations towards women.

According to Erikson (1958), identity is the main developmental task of adolescence. Research in developmental psychology has demonstrated that as Internet becomes a main social environment for most people, it becomes an essential arena for identity experimentation and exploration, playing an important role in adolescent development (Subrahmanyam, Smahel, & Greenfield, 2006). Same theories are also applicable to Arab youth. For instance, Ayed (2005), in his field study, demonstrated that Internet plays an important role in shaping the political attitudes and culture among the youth. The young generation in the Arab world are influenced by both Islamic and modern cultures (Solberg, 2002), which may not stay in harmony. The conflict brought by the usage of Internet and exposure to western culture, fundamentally shapes the self-perception of young generation. Meanwhile, compared to their counterparts, women in Arab world may experience more conflicts and transformation in their self-perception in using Internet. Therefore, of particular interest in this study is to explore the Internet usage pattern among Arabic youth with an emphasis on the female and the impact of Internet usage on their self-perception.

3 INTERNET USAGE IN UAE

The UAE is a relatively young country that was established in 1971 as a federation of seven emirates. Since its foundation, the country has undergone significant social, economic, and cultural changes. This growth was triggered by revenues from oil which was discovered in the region in the late 1950s. These revenues were substantially supplemented by investments in many other areas. Any visitor to the region will notice the huge amount of construction work being undertaken to support developments in areas as diverse as tourism, manufacturing, retailing, exports, IT, logistics, and media. By 2007 oil revenues being were only 5% of all revenue in the Emirate of Dubai.

ETISALAT has provided Internet services to the UAE since August 1995. The country now has one of the highest rates of Internet usage in the Middle East and its telecommunications sector is the most highly developed in the region. According to Emirates Internet and Multimedia (EMI), there are 2.3 million Internet users by March 2008, accounting for 49.8% of the total population. Nowadays the Internet has become an integral part of life for the young generation in UAE. The penetration of Internet also brings massive opportunities for electronic commerce. A new Arab Advisors Group major survey of Internet users in the UAE reveals that 51.2 per cent of Internet users in the UAE reported purchasing products and services online and through their mobile handsets in 2007. Therefore, to understand the Internet usage in UAE also has practical implications.

However as indicated in prior research (e.g., Straub et al., 2001), culture and social norms play an important role in shaping Internet usage. UAE nationals, being the minority (15-20%) in their own country, have kept firm ties to their cultural tradition. Particularly to our interest are those traditions or social norms enforced to the female. Although recently the government encourages Emirate females to join the workforce and take leadership roles in running the country, strong social norms remains applicable for the female. For instance, a female cannot show her face except to close family members, a female is not allowed to interact with others, particularly male, without permission from her family, and a female is not allowed to touch or be touched by males (e.g., a handshake with a work colleague is not permitted). Such norms used to limit the female from physically interacting with people outside the family network, may not be viable in the virtual world. Accessing Internet gives the female more possibilities in extending their social network, and provides more sources for identity exploration and development. Thus, we expect that Internet would play a more important role in shaping the female identity exploration.

4 METHOD

In this study, we are interested in identifying the Internet usage pattern and exploring the role of Internet in identity exploration among the adolescents in UAE. In order to understand the Internet usage and its potential impact on their self-perception among UAE adolescents, an online survey was conducted in two universities in UAE during the Spring 2008 semester. One is a public female-only university and the other is a private university with gender segregation. Invitation was sent to the students enrolled in the classes taught by the authors. Appendix is the questionnaire used for the online survey.

Since open-ended questions were included in the survey, the Nvivo, a qualitative software analysis tool, was used to identify the common responses regarding the role of Internet in identity development. Based on their responses, a focus group discussion was held in the class at the private university to confirm and identify the issues associated with the impact of Internet in identity development.

5 DATA ANALYSIS AND RESULTS

A total of 74 students participated in the study, with 26 females or 35% of respondents from the public university and 48 students or 65% of respondents from the private one. Among the participants from the private university, 15 of them are male. The age range is between 18 -23 years old. 73% of students had 6-10 years of Internet experience, 20.3% had 2-3 years of Internet experience, and the rest had more than 10 years. The majority of the students (86%) access the Internet every day while the rest access the internet between 3 – 6 times per week. This confirms that using Internet has become their daily routine.

5.1 Internet Usage Patterns

The respondents were asked to list the top 5 frequent activities with Internet. The analysis of Internet usage patterns (see Figure 1) showed that the top five applications are searching for information, email, chatting, entertainment (e.g., music and movies), and online discussions. First, Internet has become a major information source for respondents in facilitating studies, getting news on Arabic world and Islamic culture, updating with stock market and sports news, etc. Wikipedia was frequently cited by the respondents in this category. Second, like many other regions, email was found to be an alternative major communication channel, e.g., hotmail, yahoo, and/or gmail. Thirdly, online chatting, mainly through Instant Messenger such as MSN, google talk and etc, and online discussion in forums were also found to be top frequent activities. Considering the dominant female respondents in our sample, this finding confirmed our conjecture that Internet does offer an alternative channel for the Arabic female to extend their social network. Finally, the sampled adolescents also consider Internet as a playground for fun. Downloading movies and music, playing games, and producing music were reported by the respondents in this category. The survey results also revealed some popular website among the sampled adolescent, particularly ones for social networking, e.g., Facebook and Youtube.

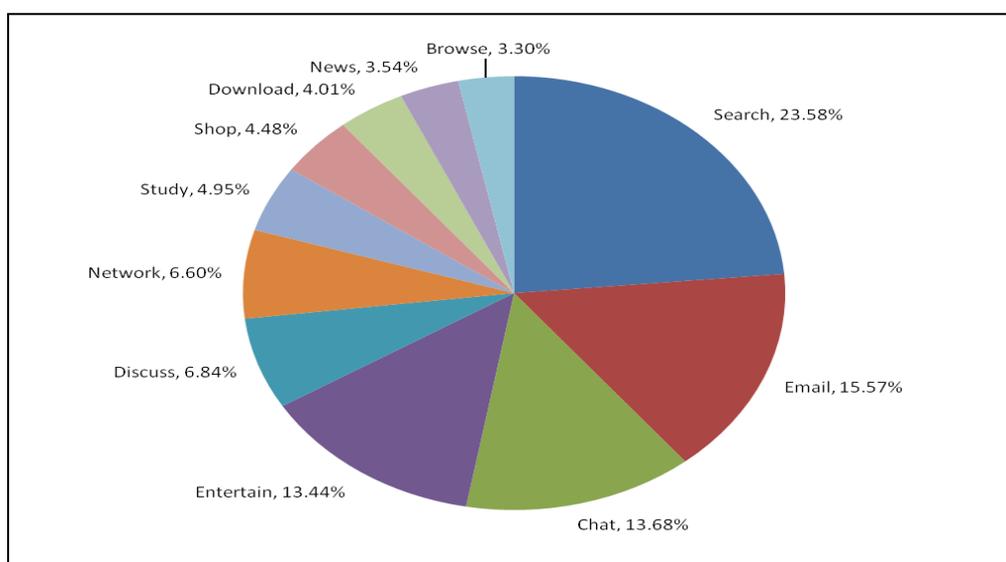


Figure 1. Internet Usage among Arabic Adolescents

According to their frequent activities, it seems that the sampled respondents used Internet mainly for information, for social connectness and networking, and for fun. These were confirmed in the subsequent focus group discussion. Below are some feedbacks from the respondents:

“I mostly use it to explore new things, and search for information, and widen my knowledge.”

“Mostly I need it [Internet] to get information, meet people, faster, easier, sometimes more effective”.

“I use the internet mainly to stay in touch with family and friend, research and entertainment”.

5.2 Difficulties/Limitations in Internet Usage

In our survey, we also asked the respondents to specify the factors that limited their Internet usage. From users' side, low self-efficacy is usually a main inhibitor for many computer applications. In our sample, except for a few female students who felt difficult in using Internet due to lack of knowledge and language skills, the majority (over 90%) feel Internet was “easy to use”. However, several other

hurdles were reported. These are: (1) inappropriate websites. Many students restricted themselves to accessing “deemed appropriate websites.” Others said they would not access websites that were against their religious or cultural values; (2) websites blocked by the Internet service provider; (3) connection speed (bandwidth); (4) family responsibilities since many students get married in their late teens or early twenties and often have children during their time at the university; (5) limitations exerts by guardian, e.g., “I cannot use it after 12 AM”; (6) security concerns, e.g., hacking and virus.

It is interesting to see how people react to “blocking website” differently. Particularly among our sampled respondents, such censorship was favoured. The possible reason could be that many students, especially females, are used to living in a protected environment where they expect their family to take care of them and are expected to respect authority. They perceived this blockage by the government Internet service provider (ETISALAT) as a kind of a paternal role -- a protective rather than a restrictive action. However, there were also quite a few students expressing their frustration with such censorship and associated concern about privacy, e.g., “...there are a lot of useful sites that are blocked in the United Arab Emirates. The internet lacks confidentially no one could guarantee that their e-mail and their personal information will not be hacked”.

5.3 Internet effects on self-perception

The second objective of this study is to find out how Internet could affect the self-perception of the adolescents. The sampled respondents were asked to reflect how they perceived themselves before and after Internet usage. The analysis of the data shows a significant change in the self-perception for these young students. Self-perception before internet use was dominated by negative adjectives such as less knowledgeable, less informed, bored, close or narrow-minded, etc. The few positives that were identified included being more social, more active/energetic, more creative, or spending more time with the family. However, some of these responses were mixed, such as being creative/not creative and being less/more social.

Concepts	#	Concepts	#
Less Knowledgeable	42	Creative/Not Creative	5
Less Informed	18	Limited	5
Bored	15	Unaware	5
Active / Energetic	13	Shy	4
Close or Narrow-Minded	11	Simple	4
Isolated / Socially Isolated	9	Not Confident	4
Less Innovative	8	Less Educated	3
Had More Time (for Play & Family)	8	More Time With Family	3
Less Social	7	Poor	3

Table 1. *Self-perception before Internet Experience*

Concepts	#	Concepts	#
Knowledgeable/ Informed	52	Aware	4
Open-Minded	20	Confident	4
Capable/Competent	17	Educated	4
Innovative/Creative	12	Independent	4
Active	8	Connected	3
Smart/Intelligent	7	Democratic	3
Sociable/Friendly	7	Experienced	3
Professional	6		

Table 2. *Self-perception after Internet Experience.*

Realizing the potential bias due to the common method in soliciting the above answers, we also relied on their feedback from the focus group discussion to interpret the results. During the focus group discussion, the participants were also asked to recollect how Internet has influenced their life, if any. Consistent with the survey results, the most prominent impact of Internet on the adolescents is intellectual capital development, which also echoes the Internet usage pattern. Secondly, despite general concerns regarding “inappropriate” content in the Internet, exposure to the external world and different perspectives did enhance the openness among adolescents to be able to appreciate different cultures and values. Although its long-term implications need to be investigated, such a change in the young generation may pose a fundamental change in Arab society. Thirdly, Internet was found to play a great role in extending the adolescents’ social network and their social skills. Considering that our sample mainly consisted of female students, this change implied a major change in the female’s social life and subsequently, a great challenge to the well-established social norms. Should the female be allowed to interact with the people outside the family in an online discussion forum or over Instant Messenger? One of the authors actually experienced such confusion among her class. A few female students expressed the concern about interacting with the others, particularly the male students in an online discussion, even if this discussion was only for study purpose. No doubt, computer-mediated communication requires re-consideration of many traditional Arabic/Islamic norms.

6 IMPLICATIONS AND FUTURE RESEARCH

This research provided an exploratory investigation of Internet use, difficulties/limitations on using the Internet, and the impact Internet has on the development of personal identity. Seventy four university students were surveyed using an online semi-structured questionnaire to elicit the results presented here. Before we draw any conclusion, we would like to highlight some limitations of this study that should be considered in externalizing the conclusions to general population. First of all, given the limited exposure, our sample size was small, compared to the population that we tried to study. With specific institutional design, i.e., female only and gender segregation, the two universities, compared to the other mixed-gender institutions, attract many students who are relatively more conservative and more subject to the traditional social norms. So our results may reflect more about the Internet usage and its impacts among conservative adolescents in UAE. Secondly, our findings regarding the impact of Internet on self-perception may suffer from the common method bias. Although we compensated by organizing focus group discussions, it is still preferable to use a longitudinal approach to track the identity development. Finally, since we did not employ comparative samples, we could not empirically demonstrate the uniqueness of the Internet usage among Arab world, which however should be pursued in future research.

Despite the above limitations, our results contribute to the existing literature that is dominant with western evidence by providing some preliminary understanding about the Internet usage among the young generation in the Arabic region. This study also opens the door for several future research directions. First, our results show a great diversity in the adolescents’ Internet usage. However, compared to their counterparts in developed countries, their usage of Internet is more basic and homogeneous. For instance, no respondents reported using Second Life. This may be due to the short history of Internet application in this country as well as some restrictions from cultural and/or social requirements. Thus it will be very interesting to compare the Internet usage patterns between different regions and cultures, to investigate the reasons behind certain patterns. Such insights would complete our understanding of Internet usage around the world and provide valuable insight in further development in different regions and/or under different cultural contexts. Second, whether the Internet will strengthen or dampen their traditional identities? In this study, we found strong evidence about the Internet impact on identity development. However, some resulting identities, e.g., sociable, seemingly conflict with some social norms that have been taken for granted a long time. How will the young generation in Arabic region reconcile such discrepancy? On the other hand, prior research has demonstrated that computer-mediated communication could strengthen the salient social identity (Spear et al. 2002), which means, the traditional social norms may also extend their regulatory power

to the virtual world. Finally, intensive attention should be paid to the gender gap in Internet usage among Arabic region. Although in this research, we mainly documented the female behaviour and perception, we are quite aware of the dramatic difference in social context between the male and the female, which may be much more salient than its counterpart. It is therefore important to compare gender differences in terms of online behaviour, attitude and consequences in the future study.

In addition to its theoretical implications, this research also entails some practical implications. First, the young generation in UAE has passed the initial stage of Internet adoption and is moving to the intensive usage of Internet. This presents a great potential for future e-commerce, and e-government development. However in promoting e-commerce, or e-government, the stakeholders also need to be aware of the traditional social norms. For instance, the widely applied customer relationship management techniques, e.g., online customer community or online agent support via live chat, may not be accepted by some local female due to strong opinions about their tradition. Such concerns should be considered when the companies try to localize their services. Second, this study provides a better understanding of how to utilize the Internet as a positive tool for change in education, workplace, and the society. Research implications draw attention to issues of culture and identity development and how these are affected by the Internet.

7 CONCLUSION

As a global phenomenon, Internet also bears distinct regional and cultural profiles. While much research has documented the Internet usage in Western world and its impacts on individuals, evidence regarding how Internet has been used in Arab world is dearth. In this study, we take an exploratory approach to provide preliminary descriptive information regarding the Internet usage patterns among young Arabic people, and the impact of Internet usage on their identity development. It was found that the Internet usage patterns were diverse however five main activities, searching, emailing, chatting, entertainment, and online discussions, form 75% of Internet usage time. Furthermore, a signification positive impact on self-perception of young Arabic students in the Middle East was observed.

References

- Anderson, J. W., and Eickelman, D. F. 1999. 'Media convergence and ITS consequences'. *Middle East Insight*, March-April, 59-61.
- Ayed, H. A. 2005. 'The Influence of Internet in the Political Culture (A Field Study)'. *Journal of Social Sciences*, 1(3), 128-135.
- Dmitri, R., Weiguo, F., Jos, and Robles, F. 2008. 'Beyond keywords: Automated question answering on the web'. *Communications of the ACM*, 51(9), 60-65.
- Erikson, E. H. 1958. 'Young man Luther'. New York: Norton.
- Gross, E. F. 2004. 'Adolescent Internet use: What we expect, what teens report'. *Journal of Applied Developmental Psychology*, 25, 633-649.
- Lenhart, A., Madden, M., and Hitlin, P. 2005. 'Teens and technology: Youth are leading the transition to a fully wired and mobile nation'. Available at: http://www.pewInternet.org/pdfs/PIP_Teens_Tech_July2005web.pdf.
- Shore, B., and Venkatachalam, A. R. 1996. 'Role of national culture in the transfer of information technology'. *Journal of Strategic Information Systems*, 5(1), 19-35.
- Solberg, C. A. 2002. 'Culture and industrial buyer behavior: The Arab experience'. Paper presented at the *The 18th IMP Conference*. from <http://impgroup.org/uploads/papers/522.pdf>.
- Spears, R., Lea, M., Corneliussen, R. A., Postmes, T., & Haar, W. T. 2002. 'Computer-Mediated Communication as a Channel for Social Resistance: The Strategic Side of SIDE'. *Small Group Research*, 33(5), 555-574.
- Straub, D. W., Loch, K. and Hill, C. 2001. 'Transfer of Information Technology to the Arab world: A test of cultural influence modelling'. *Journal of Global Information Management*, 6-28.

- Subrahmanyam, K., Smahel, D., and Greenfield, P. 2006. 'Connecting Developmental Constructions to the Internet: Identity Presentation and Sexual Exploration in Online Teen Chat Rooms'. *Developmental Psychology*, 42(3), 395-406.
- Whitlock, J. L., Powers, J. L., and Eckenrode, J. 2006. 'The Virtual Cutting Edge: The Internet and Adolescent Self-Injury'. *Developmental Psychology*, 42(3), <http://www.crpsib.com/documents/Dev%20Psych%20Dis.pdf>.

Appendix: Instrument

Your student ID (respondent's ID)

Note: ID number will NOT be used to identify individual students. This number will be used to verify the authenticity of the survey. Please use the nine digit format; for example: 200499889

1. Gender (Male/Female)
2. Age (enter your age in years)
3. Education level (Academic Bridge Program - Year 1, Academic Bridge Program - Year 2, General Education Program, Major Y1, Major Y2, Major Y3)
4. How long have you been using Internet? (Internet experience)
5. What is the frequency of your Internet access?
___ days per week
6. List your five most frequent activities using the Internet (e.g., email, online discussion, online chat, facebook, online shopping, game, information search, etc.) and rank them according to your usage frequency (1 is most frequent and 5 is least frequent).
 - 1) _____
 - 2) _____
 - 3) _____
 - 4) _____
 - 5) _____
7. What makes you use the Internet? (open-ended question)
8. What limitations do you have in using Internet? (open-ended question)
9. Does anything prevent you from fully using the Internet? Please discuss. (open-ended question)
10. In your personal opinion, what are/might be the consequences of using the Internet? (open-ended question)
11. How do you get most of your Internet information/knowledge? (open-ended question)
12. How do you perceive yourself **BEFORE** your Internet experience?
Please use the 5 fill-in-the-blank areas to answer this question. Simply type in an answer next to the numbered item and make each answer different (e.g., activist, best, democratic, innovative, etc.). Answer as if you were giving the answers to yourself, not to somebody else. Write the answers in the order that they occur to you. There are no right or wrong answers.
 - 1) In the past, I perceive myself as _____
 - 2) In the past, I perceive myself as _____
 - 3) In the past, I perceive myself as _____
 - 4) In the past, I perceive myself as _____
 - 5) In the past, I perceive myself as _____

13. Below are 5 fill-in-the-blank areas for you to answer the question “How do you perceive the Internet in your life?” Simply type in an answer next to the numbered item and make each answer different. Answer as if you were giving the answers to yourself, not to somebody else. Write the answers in the order that they occur to you. There are no right or wrong answers.

- 1) I perceive Internet as _____
- 2) I perceive Internet as _____
- 3) I perceive Internet as _____
- 4) I perceive Internet as _____
- 5) I perceive Internet as _____

14. How do you think that using the Internet has changed your self-perception? If you are asked to repeat **question 12**, how would your answers change?

Please use the 5 fill-in-the-blank areas to answer this question. Simply type in an answer next to the numbered item and make each answer different (e.g., activist, best, democratic, innovative, etc.). Answer as if you were giving the answers to yourself, not to somebody else. Write the answers in the order that they occur to you. There are no right or wrong answers.

- 1) Now I perceive myself as _____
- 2) Now I perceive myself as _____
- 3) Now I perceive myself as _____
- 4) Now I perceive myself as _____
- 5) Now I perceive myself as _____

ⁱ Ras al-Khaimah, the seventh Emirate, joined the federation later (in early 1972).